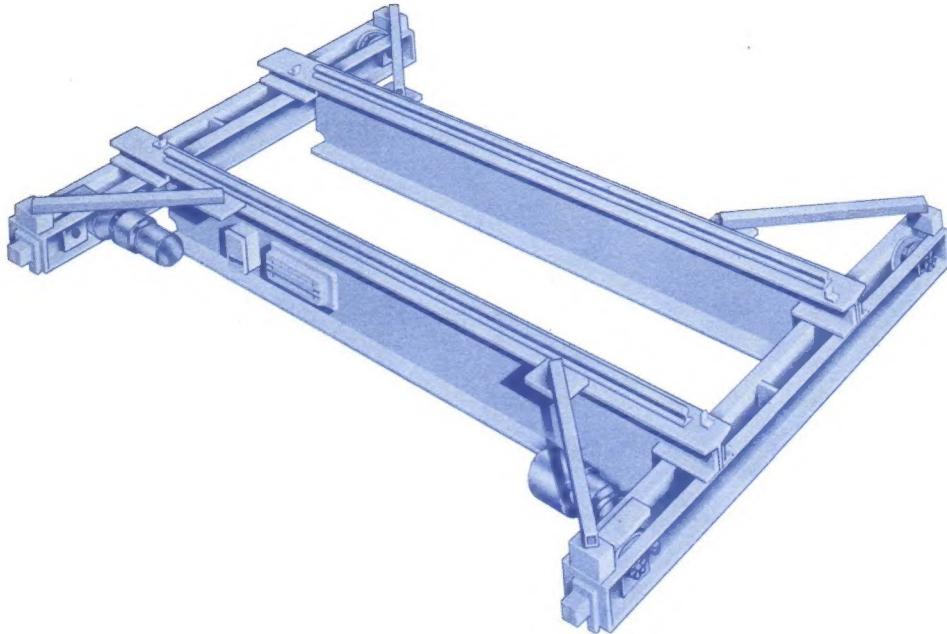


WRIGHT® WORK-RATED®
SERIES 543
TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE

CAPACITIES 3 to 30 TONS SPANS to 75 FEET



The *Wright Work-rated®* Series 543 top running double girder motor driven dual drive crane is engineered for industrial service. The double bridge beam is best where maximum height of lift is important.

The Series 543 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 543 crane is offered in capacities from three through thirty tons, with spans up to 75 feet, and with a standard bridge travel speed of 70 or 80 FPM single speed. 125-140 and 160-180 FPM are optional.

Bridge consists of two heavy section wide flange girders rigidly bolted to end truck for in-square operation. Latticed truss outriggers braced to both girders are used on longer spans.

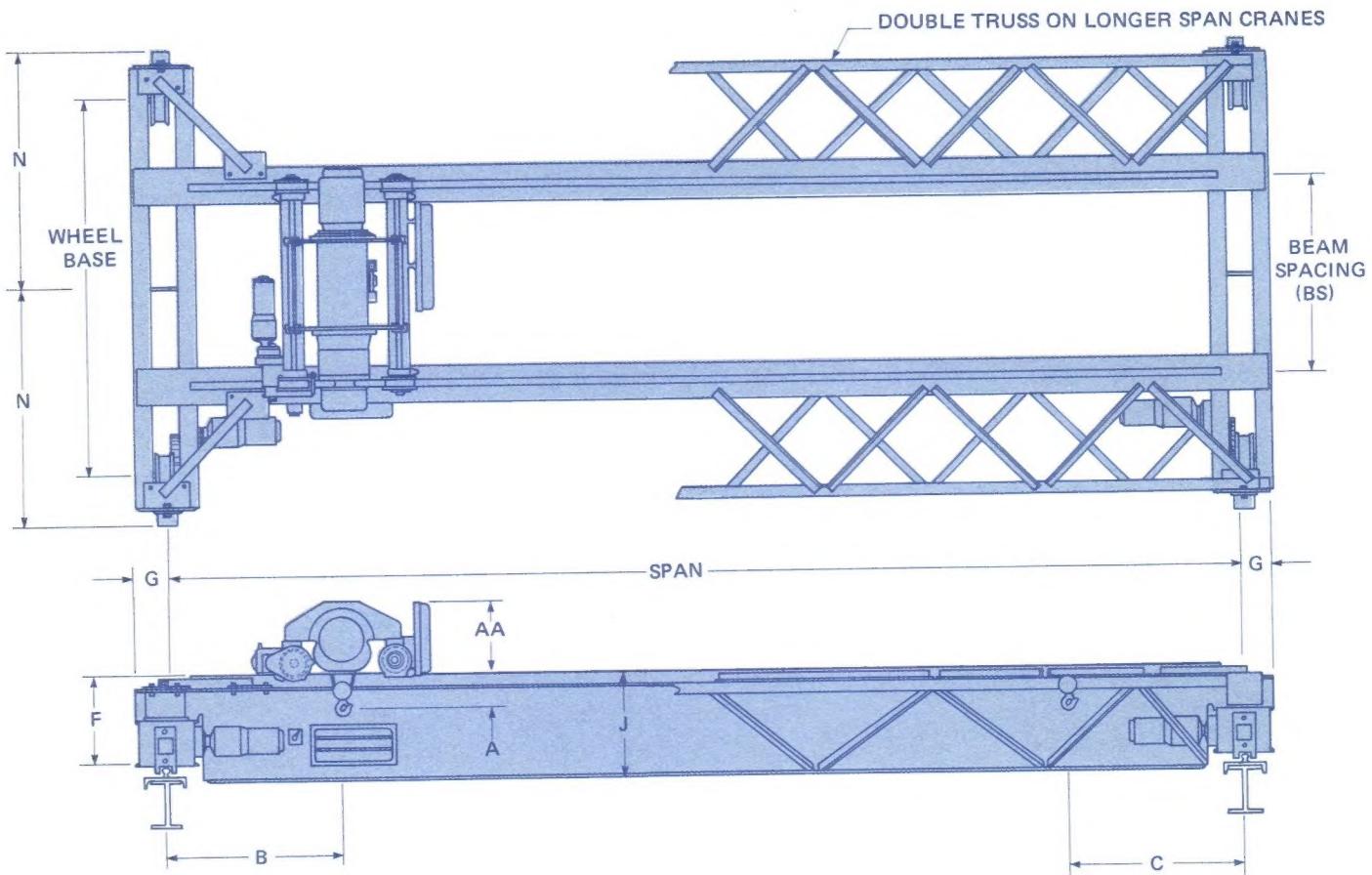
The end trucks are of welded steel channel construction, equipped with diaphragms, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

The enclosed dual drive helical gear reduction units, complete with ACM control on single and two speed and A.C. disc brakes, provide smooth bridge motion and excellent load control. The Acco ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motion.

Standard electrical equipment includes NEMA type 3R enclosure, main-line magnetic contactor, manually operated fuseable disconnect switch with lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Wright cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.



A dimension represents hoist headroom. Refer to *Work-rated* top running trolley-hoist data pages, section 34.

B and C dimension represents hoist end approach. Refer to *Work-rated* top running trolley hoist data pages and add 7" to bumper dimension measured from center line of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated* top running trolley-hoist data pages.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.
See modification and accessories.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located. (Acco standard on left hand runway). Dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.

End Truck (c)	Wheel Base	Beam Spacing (b)	Wheel Tread Dia.	G	N
4430010	8'-4"	60"	8"	5-3/4"	5'-0"
4430020	8'-4"	60"	10"	6-1/2"	5'-1-1/2"
4430030	9'-4"	60"	10"	6-1/2"	
4430040	9'-4"	78"	10"	6-1/2"	
4430050	9'-4"	60"	18"	7-3/8"	
4430060	9'-4"	78"	18"	7-3/8"	
4430070	10'-10"	96"	18"	7-3/8"	
4430080	10'-10"	60"	18"	7-3/8"	7'-7-1/2"
4430090	10'-10"	78"	18"	7-3/8"	
4430100	12'-4"	60"	18"	7-3/8"	7'-10"
4430110	12'-4"	78"	18"	7-3/8"	
4430120	9'-4"	60"	18"	7-3/8"	6'-10-1/2"
4430130	9'-4"	78"	18"	7-3/8"	



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-3 Issued 3-20-87

**3 to 30
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	(e) Outrigger	HP for FPM (d)			Weight lbs.	Wheel Loads (a) lbs.
								70	125	160		
								80	140	180		
3	25	60	5430010	4430010	18-3/4	17-1/4	D.T.	1/2	1	1-1/2	5,160	6,110
	31	60	5430020	4430010	19	17-1/4					6,562	6,460
	35	60	5430030	4430010	19-1/4	17-1/4					7,650	6,733
	40	60	5430040	4430010	21	17-1/4		3/4	1	1-1/2	9,750	7,258
	45	60	5430050	4430010	24-1/2	17-1/4					13,522	8,200
	52	60	5430060	4430010	26-3/4	17-1/4					15,326	8,652
	55	60	5430070	4430030	32-1/2	19-1/4		D.T.	1	1-1/2	18,242	9,380
	60	60	5430080	4430030	32-1/2	19-1/4					19,650	9,590
	65	60	5431010	4430080	35-3/4	25-5/8					25,195	10,976
	70	60	5431020	4430100	35-3/4	25-5/8	D.T.	3/4	1-1/2	2	26,853	11,391
	75	60	5431030	4430100	38-1/4	25-5/8					30,895	12,402
	25	60	5430090	4430010	19	17-1/4					5,660	8,880
5	25	78	5430100	4430040	19	19-1/4	D.T.	1/2	1	1-1/2	6,482	9,085
	29	60	5430110	4430010	19-1/4	17-1/4					6,666	9,132
	35	60	5430120	4430040	19-1/4	19-1/4					7,486	9,337
	35	60	5430130	4430010	19-1/4	17-1/4		3/4	1	1-1/2	8,350	9,553
	35	78	5430140	4430040	19-1/4	19-1/4					9,170	9,758
	40	60	5430150	4430010	21	17-1/4		1/2	1	1-1/2	11,350	10,303
	40	78	5430160	4430040	21	19-1/4					12,170	10,508
	45	60	5430170	4430010	26-3/4	17-1/4					13,522	10,845
	45	78	5430180	4430040	26-3/4	19-1/4		3/4	1	1-1/2	14,342	11,050
	51	60	5430190	4430010	26-3/4	17-1/4					15,070	11,232
	55	60	5430200	4430040	26-3/4	19-1/4					15,890	11,437
	55	78	5430210	4430030	32-1/2	19-1/4	D.T.	1/2	1	1-1/2	18,240	12,025
	55	78	5430220	4430040	32-1/2	19-1/4					18,240	12,025
	60	60	5430230	4430030	32-1/2	19-1/4					19,650	12,378
	60	78	5430240	4430040	32-1/2	19-1/4	D.T.	3/4	1-1/2	2	19,650	12,378
	65	60	5431040	4430080	35-3/4	25-5/8					25,195	13,764
	65	78	5431050	4430090	35-3/4	25-5/8					25,195	13,764
	70	60	5431060	4430100	35-3/4	25-5/8	D.T.	1-1/2	2	1	26,853	14,179
	70	78	5431070	4430110	35-3/4	25-5/8					26,853	14,179
	75	60	5431080	4430100	38-1/4	25-5/8					30,895	15,190
	75	78	5431090	4430110	38-1/4	25-5/8	D.T.	1	1	1	30,895	15,190

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-4 Issued 3-20-87

**3 to 30
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	(e) Outrigger	HP for FPM (d)			Weight lbs.	Wheel Loads (a) lbs.
								70	125	160		
								80	140	180		
7-1/2	25	60	5430250	4430020	19-1/4	19-1/4	(e) Outrigger	1/2	3/4	1	6,430	11,947
		78	5430260	4430040	19-1/4	19-1/4					6,830	12,047
	31	60	5430270	4430020	19-1/4	19-1/4					8,034	12,348
		78	5430280	4430040	19-1/4	19-1/4					8,434	12,448
	36	60	5430290	4430020	21	19-1/4		1/2	1	1-1/2	10,826	13,046
		78	5430300	4430040	21	19-1/4					11,226	13,146
	38	60	5430310	4430020	24-1/2	19-1/4					11,298	13,164
		78	5430320	4430040	24-1/2	19-1/4	42	1/2	1	1-1/2	11,698	13,264
	42	60	5430330	4430020	26-3/4	19-1/4					13,166	13,631
		78	5430340	4430040	26-3/4	19-1/4					13,566	13,731
	46	60	5430350	4430020	26-3/4	19-1/4	51	1/2	3/4	1-1/2	14,198	13,889
		78	5430360	4430040	26-3/4	19-1/4					14,598	13,989
	51	60	5430370	4430020	27	19-1/4					16,814	14,543
		78	5430380	4430040	27	19-1/4	56	1/2	1	1-1/2	17,214	14,643
	56	60	5430390	4430030	32-1/2	19-1/4					18,522	14,970
		78	5430400	4430040	32-1/2	19-1/4					18,533	14,970
	60	60	5430410	4430030	32-3/4	19-1/4	60	1/2	3/4	1-1/2	21,690	15,762
		78	5430420	4430040	32-3/4	19-1/4					21,690	15,762
	65	60	5431100	4430080	35-3/4	25-5/8					25,512	16,718
		78	5431110	4430090	35-3/4	25-5/8	70	1/2	1	2	25,512	16,718
	70	60	5431120	4430100	38-1/4	25-5/8					29,584	17,736
		78	5431130	4430110	38-1/4	25-5/8					29,584	17,736
	75	60	5431140	4430100	38-3/4	25-5/8	75	1/2	2	3	33,492	18,713
		78	5431150	4430110	38-3/4	25-5/8					33,492	18,713
10	25	60	5430430	4430020	19-1/4	19-1/4	10	1/2	1	1-1/2	6,930	15,222
		78	5430440	4430040	19-1/4	19-1/4					7,330	15,322
	28	60	5430450	4430020	19-1/4	19-1/4					7,482	15,360
		78	5430460	4430040	19-1/4	19-1/4					7,882	15,460
	33	60	5430470	4430020	21	19-1/4					10,118	16,019
		78	5430480	4430040	21	19-1/4					10,518	16,119
	37	60	5430490	4430020	26-3/4	19-1/4	42	1/2	1	1-1/2	11,878	16,459
		78	5430500	4430040	26-3/4	19-1/4					12,278	16,559
	42	60	5430510	4430020	26-3/4	19-1/4					13,166	16,781
		78	5430520	4430040	26-3/4	19-1/4					13,566	16,881
	46	60	5430530	4430020	27	19-1/4					15,394	17,338
		78	5430540	4430040	27	19-1/4					15,794	17,438
	51	60	5430550	4430020	27-1/4	19-1/4	51	1/2	3/4	1-1/2	18,242	18,050
		78	5430560	4430040	27-1/4	19-1/4					18,642	18,150
	54	60	5430570	4430030	32-3/4	19-1/4					18,930	18,222
		78	5430580	4430040	32-3/4	19-1/4					18,930	18,222
	60	60	5430590	4430030	35-3/4	19-1/4					21,930	18,972
		78	5430600	4430040	35-3/4	19-1/4					21,930	18,972
	65	60	5431160	4430080	38-1/4	25-5/8	65	1/2	1	2	27,462	20,355
		78	5431170	4430090	38-1/4	25-5/8					27,462	20,355
	70	60	5431180	4430100	38-3/4	25-5/8					31,570	21,382
		78	5431190	4430110	38-3/4	25-5/8	70	1/2	2	3	31,570	21,382

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-5 Issued 3-20-87

**3 to 30
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	e Outrigger	HP for FPM (d)			Weight lbs.	Wheel Loads (a) lbs.
								80	140	180		
15	15	25	60	5430610	4430050	24-3/4	26	1-1/2	2	3	10,210	21,892
		25	78	5430620	4430060	24-3/4	26				10,210	21,892
		30	60	5430630	4430050	27-1/8	26				12,050	22,352
		30	78	5430640	4430060	27-1/8	26				12,050	22,352
		36	60	5430650	4430050	27-1/8	26				13,598	22,739
		36	78	5430660	4430060	27-1/8	26				13,598	22,739
		40	60	5430670	4430050	27-3/8	26				15,670	23,257
		40	78	5430680	4430060	27-3/8	26				15,670	23,257
		44	60	5430690	4430050	27-5/8	26				18,038	23,849
		44	78	5430700	4430060	27-5/8	26				18,038	23,849
		49	60	5430710	4430050	30-1/2	26				21,070	24,606
		49	78	5430720	4430060	30-1/2	26				21,070	24,606
		54	60	5430730	4430050	36	26	D.T.	2	3	21,390	24,687
		54	78	5430740	4430060	36	26				21,390	24,687
		60	60	5430750	4430050	38-5/8	26	D.T.	2	3	25,362	25,680
		60	78	5430760	4430060	38-5/8	26				25,362	25,680
		64	60	5431200	4430080	39	26	D.T.	1-1/2	3	28,908	26,570
		64	78	5431210	4430090	39	26				28,908	26,570
		68	60	5431220	4430100	39-1/4	26	D.T.	1-1/2	3	33,246	27,655
		68	78	5431230	4430110	39-1/4	26				33,246	27,655
20	20	25	60	5430770	4430050	24-3/4	26	1-1/2	2	3	10,210	27,918
		25	78	5430780	4430060	24-3/4	26				10,210	27,918
		32	96	5430790	4430070	24-3/4	26				10,450	27,978
		32	60	5430800	4430050	27-1/8	26				12,566	28,507
		32	78	5430810	4430060	27-1/8	26				12,566	28,507
		36	96	5430820	4430070	27-1/8	26				12,806	28,567
		36	60	5430830	4430050	27-3/8	26	1	2	3	14,534	29,000
		36	78	5430840	4430060	27-3/8	26				14,534	29,000
		39	96	5430850	4430070	27-3/8	26	D.T.	2	3	14,774	29,059
		39	60	5430860	4430050	27-5/8	26				16,478	29,485
		39	78	5430870	4430060	27-5/8	26	D.T.	1-1/2	3	16,478	29,485
		44	96	5430880	4430070	27-5/8	26				16,718	29,545
		44	60	5430890	4430050	30-1/2	26	D.T.	2	3	19,358	30,205
		44	78	5430900	4430060	30-1/2	26				19,358	30,205
		48	96	5430910	4430070	30-1/2	26	D.T.	2	3	19,598	30,265
		48	60	5430920	4430050	36-1/4	26				20,662	30,521
		48	78	5430930	4430060	36-1/4	26	D.T.	2	3	20,662	30,521
		52	96	5430940	4430070	36-1/4	26				20,862	30,581
		52	60	5430950	4430050	36-1/4	26	D.T.	1-1/2	3	21,998	30,865
		52	78	5430960	4430060	36-1/4	26				21,998	30,865
		60	96	5430970	4430070	36-1/4	26	D.T.	1-1/2	3	22,238	30,925
		60	60	5430980	4430050	39	26				27,150	32,153
		60	78	5430990	4430060	39	26	D.T.	1-1/2	3	27,150	32,153
		62	96	5431000	4430070	39	26				27,390	32,213
		62	60	5431240	4430080	39-1/4	26	D.T.	1-1/2	3	30,793	33,064
		62	78	5431250	4430090	39-1/4	26				30,793	33,064
		64	96	5431260	4430070	39-1/4	26	D.T.	1-1/2	3	30,793	33,064
		64	60	5431270	4430080	39-1/2	26				33,166	33,657
		64	78	5431280	4430090	39-1/2	26	D.T.	1-1/2	3	33,166	33,657
		64	96	5431290	4430070	39-1/2	26				33,166	33,657

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-6 Issued 3-20-87

**3 to 30
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	(e) Outrigger	HP for FPM (d)			Weight lbs.	Wheel Loads (a) lbs.
								80	140	180		
25	25	60	5431300	4430120	27-1/8	26		1-1/2	3	3	10,793	34,998
		78	5431310	4430130	27-1/8	26		1-1/2	3	3	10,793	34,998
	29	60	5431320	4430120	27-1/8	26		1-1/2	3	3	11,725	35,231
		78	5431330	4430130	27-1/8	26		1-1/2	3	3	11,725	35,231
	33	60	5431340	4430120	27-3/8	26		1-1/2	3	3	13,437	35,659
		78	5431350	4430130	27-3/8	26		1-1/2	3	3	13,437	35,659
	36	60	5431360	4430120	30-1/2	26		1-1/2	3	4	16,739	36,495
		78	5431370	4430130	30-1/2	26		1-1/2	3	4	16,739	36,495
	41	60	5431380	4430120	30-1/2	26		1-1/2	3	4	18,477	36,930
		78	5431390	4430130	30-1/2	26		1-1/2	3	4	18,477	36,930
	43	60	5431400	4430120	33-1/8	26	D.T.	1-1/2	3	4	18,003	36,812
		78	5431410	4430130	33-1/8	26	D.T.	1-1/2	3	4	18,003	36,812
	46	60	5431420	4430120	36	26	D.T.	1-1/2	3	4	19,141	37,097
		78	5431430	4430130	36	26	D.T.	1-1/2	3	4	19,141	37,097
	52	60	5431440	4430120	38-5/8	26	D.T.	1-1/2	3	4	22,780	38,007
		78	5431450	4430130	38-5/8	26	D.T.	1-1/2	3	4	22,780	38,007
	56	60	5431460	4430120	39	26	D.T.	1-1/2	3	4	25,906	38,789
		78	5431470	4430130	39	26	D.T.	1-1/2	3	4	25,906	38,789
	59	60	5431480	4430120	39-1/4	26	D.T.	1-1/2	3	4	31,363	40,153
		78	5431490	4430130	39-1/4	26	D.T.	1-1/2	3	4	31,363	40,153
30	25	60	5431500	4430120	27-1/8	26		1-1/2	3	4	10,793	40,748
		78	5431510	4430130	27-1/8	26		1-1/2	3	4	10,793	40,748
	30	60	5431520	4430120	27-3/8	26		1-1/2	3	4	12,798	41,249
		78	5431530	4430130	27-3/8	26		1-1/2	3	4	12,798	41,249
	35	60	5431540	4430120	30-1/2	26		1-1/2	3	4	16,739	42,234
		78	5431550	4430130	30-1/2	26		1-1/2	3	4	16,739	42,234
	40	60	5431560	4430120	33-1/8	26	D.T.	1-1/2	3	4	17,347	42,386
		78	5431570	4430130	33-1/8	26	D.T.	1-1/2	3	4	17,347	42,386
	43	60	5431580	4430120	36	26	D.T.	1-1/2	3	4	18,473	42,668
		78	5431590	4430130	36	26	D.T.	1-1/2	3	4	18,473	42,668
	46	60	5431600	4430120	38-5/8	26	D.T.	1-1/2	3	4	21,031	43,308
		78	5431610	4430130	38-5/8	26	D.T.	1-1/2	3	4	21,031	43,308
	49	60	5431620	4430120	38-5/8	26	D.T.	1-1/2	3	4	22,074	43,569
		78	5431630	4430130	38-5/8	26	D.T.	1-1/2	3	4	22,074	43,569
	54	60	5431640	4430120	39-1/8	26	D.T.	2	3	4	26,647	44,712
		78	5431650	4430130	39-1/8	26	D.T.	2	3	4	26,647	44,712
	57	60	5431660	4430120	39-1/2	26	D.T.	2	3	5	30,433	45,659
		78	5431670	4430130	39-1/2	26	D.T.	2	3	5	30,433	45,659

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net load at the hook of any type of hoist. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin of strength to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAMS Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/800 of the span. Bridge beam shall be selected structural steel members provided with rails. Rails shall be securely fastened in place to maintain center distance. Provision shall be made to prevent creeping of the bridge rails by means of a positive stop at the ends of the rails. The bridge beam shall be braced to maintain squareness with the trucks. Bridge beam shall have adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical beam moment of inertia.

END TRUCKS The end truck frame shall be welded from structural shapes into a single unit as to prevent distortion and mismatch of gears under maximum rated load. End truck wheelbase shall be a minimum of 1/7 of the crane span. One wheel in each truck shall be geared and meshed with a pinion. The truck shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck member. A wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that the drop of the truck will be limited to one inch in case of axle or wheel failure. Attachment of end truck to bridge beam shall be bolted.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE Each end truck shall be provided with a helical gear motor reducer. The drive motor for each truck shall be fully enclosed, 30 minute duty rated Class B insulation in a NEMA frame and shall comply with NEMA performance specifications. A spring set, electrically released A.C. disc type brake shall be integrally mounted on each reducer in line with the motor. The motors shall be integral with fully enclosed oil splash lubricated gear reducers. The gear reduction shaft shall be supported by precision ball or roller bearings.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed motors or two speed motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electric Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



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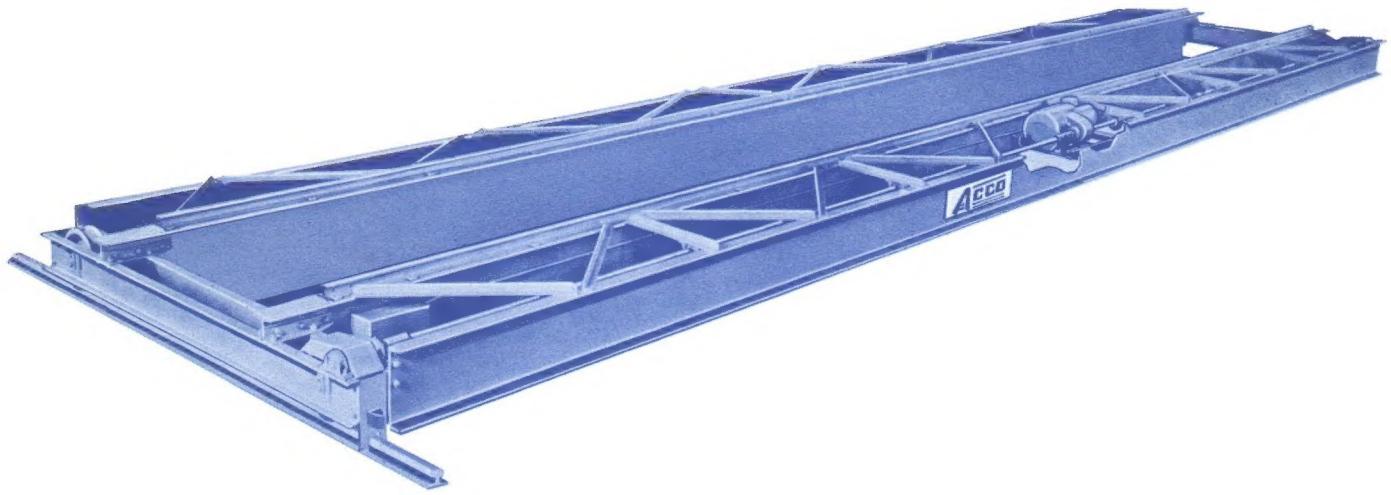
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WRIGHT® WORK-RATED®
SERIES 544
TOP RUNNING DOUBLE GIRDER CRANE
MOTOR DRIVEN — CENTER DRIVE

CAPACITIES 3 to 10 TONS SPANS to 60 FEET



The *Wright Work-rated* Series 544 top running double girder motor driven center drive crane is engineered for industrial service. The double bridge beam is best where maximum height of lift is important.

The Series 544 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 544 crane is offered in capacities from three through ten tons, with spans up to 60 feet, and with a standard bridge travel speed of 75 FPM single speed. 125 and 175 FPM are optional.

Bridge consists of two heavy section beams rigidly bolted to end truck for in-square operation. A heavy structural channel outrigger member, running full length of bridge, is braced to the bridge on crane-drive side to provide lateral rigidity and support to the drive unit. Spans over 30 feet are provided with a heavy structural channel outrigger member braced to the bridge idler beam to provide additional lateral rigidity. Spans greater than 50 feet are provided with latticed truss outriggers braced to both beams.

The end trucks are of welded steel channel construction, equipped with

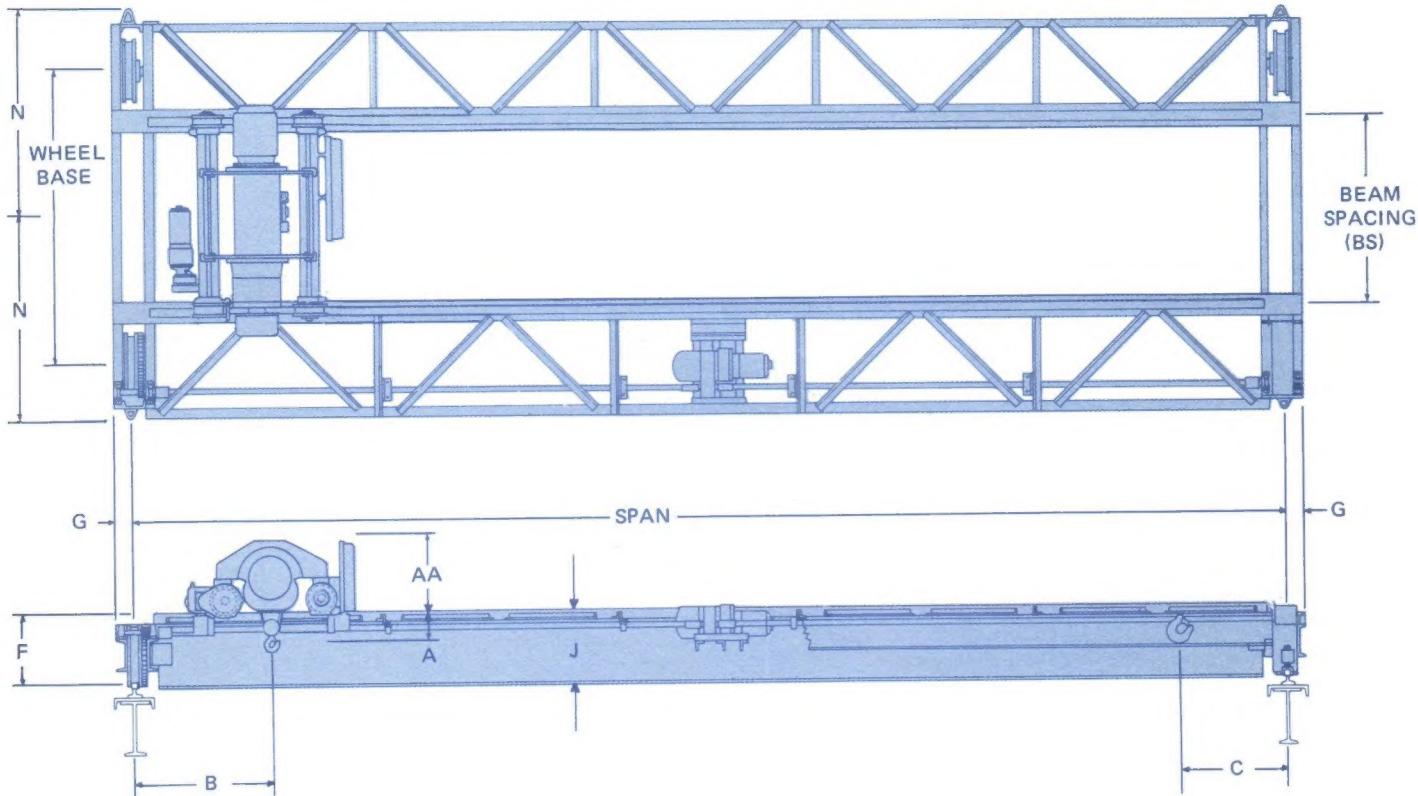
diaphragms, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

The *Wright* enclosed center mounted standard 75 FPM single speed crane drive unit complete with ACM control and brake provides smooth bridge motion and excellent load control. The *ACCO ACM* is an all-solid state acceleration control module designed exclusively for crane and trolley traverse motions. The equal length squaring shaft is geared to wheels on both end trucks to provide uniform travel at both sides of the crane.

Standard electrical equipment includes NEMA type 3R enclosure main-line magnetic contactor, manually operated fuseable disconnect switch without lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Series 544 cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.



A dimension represents hoist headroom. Refer to *Work-rated* top running trolley-hoist data pages, section 34.

B and C dimension represents hoist end approach. Refer to *Work-rated* top running trolley-hoist data pages and add 7" to bumper dimension measured from centerline of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated* top running trolley-hoist data pages.

Dimensions in inches unless otherwise specified.

Cranes up to and including 30'-0" span are furnished with single outrigger on drive side.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located, (Acco standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.



**WORK-RATED® SERIES 544 TOP RUNNING DOUBLE GIRDER
MOTOR DRIVEN—CENTER DRIVE CRANE**

54-11 Issued 3-20-87

**3 to 10
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	Outrigger (d)	HP for FPM			Weight lbs.	Wheel Loads (a) lbs.
							75	125	175		
3	25	60	5440010	4440010	17-3/4	Channel	1/2	1	1-1/2	4510	5808
	30		5440020	4440010	20-3/4	Channel	1/2	1	1-1/2	5880	6155
	35		5440030	4440010	20-3/4	Channel	1/2	1	1-1/2	7600	6585
	40		5440040	4440010	20-3/4	Channel	1/2	1	2	8460	6800
	50		5440050	4440010	22-3/4	Channel	1	1-1/2	2	13885	8157
	55		5440060	4440040	29-3/4	Double Truss	1	2	3	15800	8635
	60		5440070	4440040	32-3/4	Double Truss	1	2	3	18030	9193
5	25	60	5440080	4440010	20-3/4	Channel	1	1-1/2	2	5090	8260
	30	60	5440100	4440010	20-3/4	Channel	1	1-1/2	2	5809	8438
	40	60	5440120	4440010	22-3/4	Channel	1	1-1/2	2	9500	9360
	50	60	5440140	4440010	26-3/4	Channel	1	2	3	15375	10829
	55	60	5440160	4440040	29-3/4	Double Truss	1	2	3	15800	10935
	60	60	5440180	4440040	32-3/4	Double Truss	1	2	3	18030	11493
7-1/2	25	60	5440200	4440010	20-3/4	Channel	1	1-1/2	3	5935	11799
	35	60	5440210	4440030	22-3/4	Channel	1	2	3	9250	12608
	78	60	5440220	4440010							
	35	78	5440230	4440030							
	40	60	5440240	4440010	26-3/4	Channel	1	2	3	11250	13108
	78	5440250	4440030	4440010	26-3/4	Channel	1	2	3	14750	13983
	45	60	5440260								
	78	5440270	4440030								
	50	60	5440280	4440020	29-3/4	Channel	1	2	3	15700	14220
	78	5440290	4440030	4440020	29-3/4	Channel	1	2	3	18900	15045
	55	60	5440300								
10	25	60	5440310	4440050	32-3/4	Double Truss	1-1/2	3	5	18900	17395
	78	5440320	4440050	4440020	35-3/4	Double Truss	1-1/2	3	5	21710	1748
	35	60	5440340								
	78	5440350	4440030								
	40	60	5440360	4440020	22-3/4	Channel	1	2	3	9600	15570
	78	5440370	4440030	4440020	26-3/4	Channel	1	2	5	11800	16120
	45	60	5440380								
	78	5440390	4440030								
	50	60	5440400	4440020	26-3/4	Channel	1-1/2	3	5	14750	16808
	78	5440410	4440030	4440020	26-3/4	Channel	1-1/2	3	5	16900	17395
	55	60	5440420								
	60	5440430	4440030								
	78	5440440	4440050	4440050	32-3/4	Double Truss	1-1/2	3	5	18900	17920
	60	5440450	4440060								
	78	5440460	4440050								
	60	5440470	4440060								

End Truck (c)	Wheel Base	Beam Spacing (b)	Wheel Tread Dia.	F	G	N
4440010	7'-8"	60"	12"	17-3/8"	4-3/4"	5'-1"
4440020	7'-8"	60"	18"	21-3/8"	5-1/2"	5'-4"
4440030	9'-2"	78"	18"	21-3/8"	5-1/2"	6'-2"
4440040	9'-2"	60"	12"	19-3/4"	5-1/8"	6'-5"
4440050	9'-2"	60"	18"	23-3/4"	5-3/4"	6'-10"
4440060	9'-2"	78"	18"	23-3/4"	5-3/4"	6'-10"

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail = 60#/Yd.

(d) Cranes up to and including 30'-0" spans are furnished with single outrigger on drive side.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAMS Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/800 of the span. Bridge beam shall be selected structural steel members provided with ASCE rails. Rails shall be securely fastened in place to maintain center distance. Provision shall be made to prevent creeping of the bridge rails by means of a positive stop at the ends of the rails. Crane shall be reinforced with outrigger to provide squareness with the end truck, adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical beam moment of inertia. Outrigger shall furnish support for squaring shaft and the crane drive motor and gear reducer assembly.

END TRUCKS End trucks shall be built of structural shapes and welded to a stable assembly of sufficient strength to comply with general strength requirements previously stated. They shall provide proper wheel and bearing alignment for crane wheels and drives during the life of the crane. End truck wheelbase shall be a minimum of 1/7 of the crane span. One wheel in each truck shall be geared and meshed with a pinion mounted on the crane squaring shaft. The crane end trucks shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck members. A wheel and wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that, in case of a wheel axle or wheel failure, the drop of the load will be limited to one inch. Attachment of end trucks to bridge beams shall be bolted.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium-base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE The crane drive motor shall be totally enclosed 30 minute duty cycle rated, with class B insulation complying with NEMA performance specifications. The motor shall be integral with a fully enclosed oil splash lubricated gear reduction. The motor and the gear reduction shafts shall be supported by permanently lubricated precision ball or roller bearings. The drive shaft shall provide synchronous drive from the gear reduction to both end trucks. The crane drive shall include an integrally mounted spring set electrically released D.C. rectified disc brake.

DRIVE SHAFT The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane drive shaft shall be steel and designed to limit torsional shaft stress to 6,000 psi. Maximum torsional twist angle in the drive shaft shall not exceed one degree of the wheel rotation under maximum rated load, regardless of load location.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single-speed or multi-speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push-button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed and two speed motors to 5 HP shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electrical Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



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ACCO Chain & Lifting Products Division

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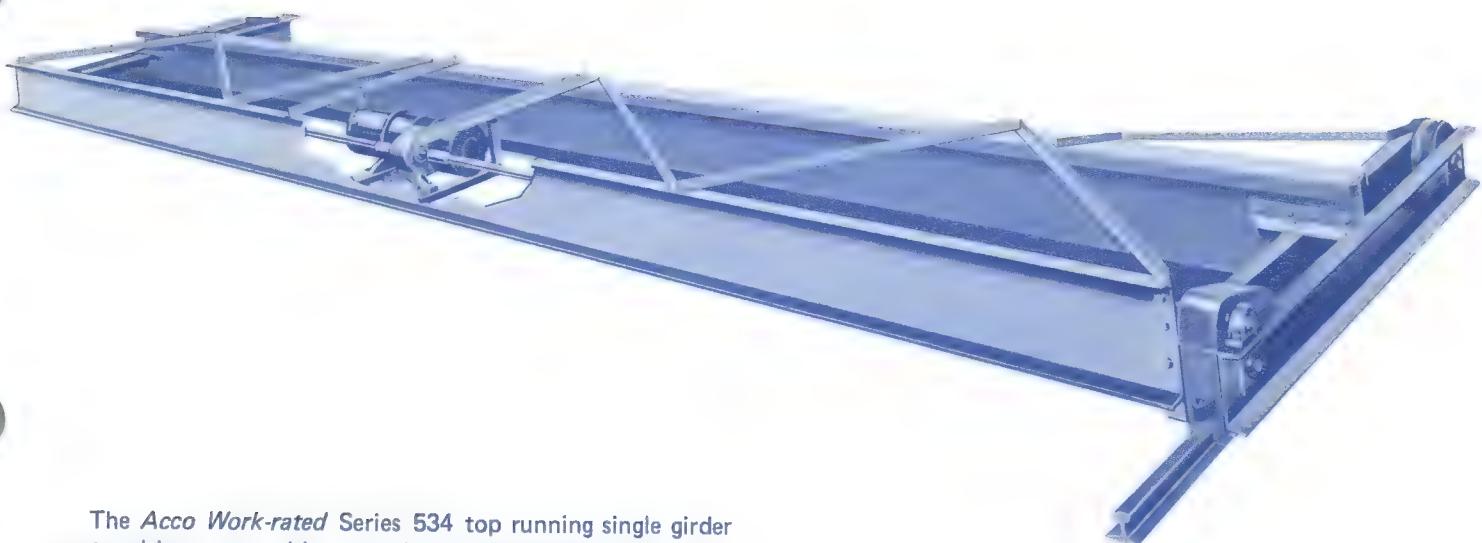
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WORK-RATED®

SERIES 534

**TOP RUNNING SINGLE GIRDER CRANE
MOTOR DRIVEN—CENTER DRIVE**

CAPACITIES 1 to 10 TONS SPANS to 50 FEET



The *Acco Work-rated* Series 534 top running single girder motor driven center drive crane is engineered for normal industrial service. The notched bridge beam design is best where overhead clearance and height of lift are important.

The Series 534 top running single girder crane, when combined with a *Work-rated®* or *Wright American* electric trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 534 crane is offered in capacities from one through ten tons, with spans up to 50 feet, and with a standard bridge travel speed of 75 FPM, single speed. Optional 125 and 175 FPM single speed with ACM or 75/25, 125/42 and 175/58 two speed with ACM is available. Five step variable speed is also available at 75, 125 or 175 FPM.

Bridge consists of heavy section beam, rigidly bolted to the end trucks for in-square operation. Longer spans are reinforced by capping channel welded to the bridge beam. A heavy structural channel outrigger member, running full length of bridge, is braced to the bridge beam on the crane drive side to provide lateral rigidity and support to the drive unit.

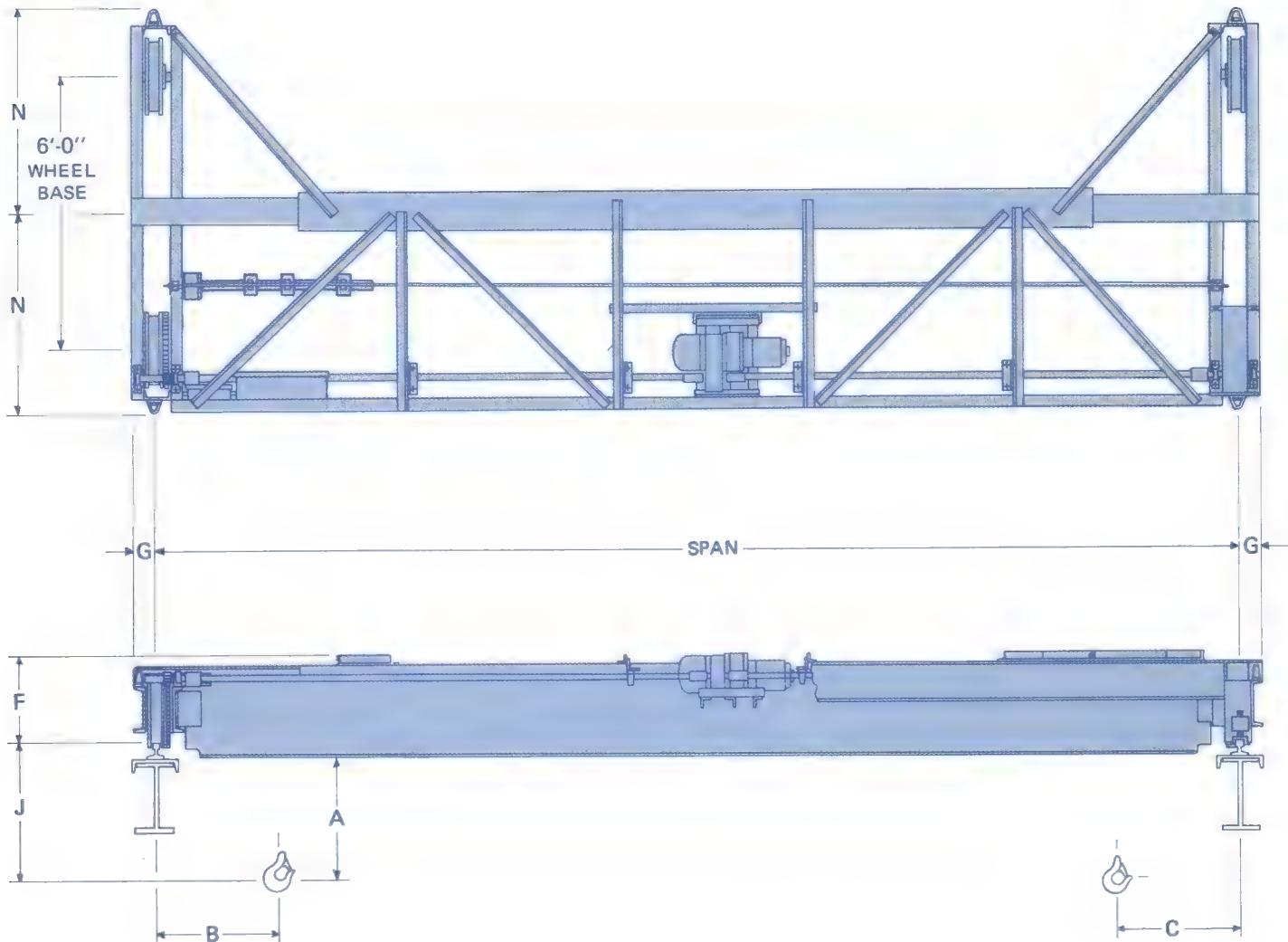
The end trucks are of welded-steel channel construction equipped with diaphragms, jig-welded and bored to provide alignment of wheels, axles and drive shaft. Wheel and gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing rubber bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flanged. All end truck wheels are equipped with prelubricated, tapered roller bearings, two to each wheel.

The Series 534 enclosed center mounted standard 75 FPM single speed crane drive unit complete with ACM control and D.C. rectified disc brake provides smooth bridge motion and excellent load control. The *Acco ACM* is an all-solid state acceleration control module designed exclusively for crane and trolley traverse motions. The equal length squaring shaft is geared to wheels on both end trucks to provide uniform travel at both sides of the crane.

Standard electrical equipment includes NEMA type 3R enclosure, mainline magnetic contactor, manually operated fuseable disconnect switch with lockout provision, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and flat wire festoon tagline bridge electrification. Optional pendant or traveling push-button from the bridge is available.

Series 534 cranes are custom-designed, using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.



A dimension represents hoist headroom. Refer to *Wright-way®* or *Work-rated* hoist data pages.

B and C dimension represents hoist end approach. Refer to dimension on *Wright-way* or *Work-rated* hoist data pages and add 15" for 'B' dimension. For all standard headroom hoists add 10" for 'C' dimension. For all close headroom hoists add 13-1/2" for 'C' dimension.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors. Left-hand runway is standard location of runway conductors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, and beam size. State from which runway beam mainline conductors are located (Acco standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired as listed in modifications and accessories section.



**WORK-RATED® SERIES 534 TOP RUNNING
SINGLE GIRDER CRANE MOTOR DRIVEN — CENTER DRIVE**

53-15 Issued 8-31-87

**1 to 10
TONS**

Cap. (Tons)	Max. Span (Ft.)	Crane Product Number	End Truck Product Number	Bridge Beam	Capping Channel	Outrigger Channel	J	HP for FPM			Weight (Lbs.)	Wheel Load (Lbs.) (a)
								75	125	175		
1	20	5340010	4340010	12x31.8 #	—	9x13.4 #	A-	7/8	1/2	1/2	1	2165
	25	5340020	4340010	12x31.8 #	—	9x13.4 #	A-	7/8	1/2	1/2	1	2540
	30	5340030	4340010	15x42.9 #	—	10x15.3 #	A+	2-1/8	1/2	1/2	1	3230
	40	5340040	4340010	15x42.9 #	8x11.5 #	12x20.7 #	A+	2-1/8	1/2	1/2	1	4540
	50	5340050	4340010	18x54.7 #	9x13.4 #	15x33.9 #	A+	5-1/8	1/2	1	1	6875
2	20	5340060	4340010	12x31.8 #	—	9x13.4 #	A-	7/8	1/2	1/2	1	2195
	25	5340070	4340010	15x42.9 #	—	9x13.4 #	A+	2-1/8	1/2	1/2	1	2836
	30	5340080	4340010	18x54.7 #	—	10x15.3 #	A+	5-1/8	1/2	1/2	1	3590
	35	5340090	4340010	15x42.9 #	9x13.4 #	12x20.7 #	A+	2-1/8	1/2	1	1	4215
	40	5340100	4340010	18x54.7 #	9x13.4 #	12x20.7 #	A+	5-1/8	1/2	1	1	5095
	45	5340110	4340010	18x54.7 #	10x15.3 #	15x33.9 #	A+	5-1/8	1/2	1	1	6331
	50	5340120	4340010	20x66 #	10x15.3 #	15x33.9 #	A+	7-1/8	1/2	1	1-1/2	7420
3	20	5340130	4340010	15x42.9 #	—	9x13.4 #	A+	2-1/8	1/2	1	1	2430
	25	5340140	4340010	18x54.7 #	—	9x13.4 #	A+	5-1/8	1/2	1	1	3135
	30	5340150	4340010	15x42.9 #	8x11.5 #	10x15.3 #	A+	2-1/8	1/2	1	1	3575
	35	5340160	4340010	18x54.7 #	8x11.5 #	12x20.7 #	A+	5-1/8	1/2	1	1-1/2	4705
	40	5340170	4340010	18x54.7 #	9x13.4 #	12x20.7 #	A+	5-1/8	1/2	1	1-1/2	5445
	45	5340180	4340010	20x66 #	10x15.3 #	15x33.9 #	A+	7-1/8	1/2	1	1-1/2	7190
	50	5340190	4340010	24x80 #	10x15.3 #	15x33.9 #	A+	11-1/8	1/2	1	1-1/2	8540
5 & 6	20	5340200	4340020	18x54.7 #	—	9x13.4 #	A+	2-1/4	1/2	1	1-1/2	2990
	25	5340210	4340020	15x42.9 #	10x15.3 #	10x15.3 #	A-	3/4	1/2	1	2	3455
	30	5340220	4340020	18x54.7 #	8x11.5 #	10x15.3 #	A+	2-1/4	1/2	1	2	4200
	35	5340230	4340020	20x66 #	10x15.3 #	12x20.7 #	A+	4-1/4	1	1	2	5430
	40	5340240	4340020	24x80 #	10x15.3 #	12x20.7 #	A+	8-1/4	1	1-1/2	2	6555
	45	5340250	4340020	24x80 #	10x15.3 #	15x33.9 #	A+	8-1/4	1	1-1/2	2	7850
	50	5340260	4340020	24x80 #	12x20.7 #	15x33.9 #	A+	8-1/4	1	1-1/2	2	8810
7-1/2	20	5340270	4340020	20x66 #	—	10x15.3 #	A+	4-1/4	1	1-1/2	2	4030
	25	5340280	4340030	18x54.7 #	8x11.5 #	10x15.3 #	A-	2	1	1-1/2	2	4575
	30	5340290	4340030	20x66 #	10x15.3 #	10x15.3 #	A-	0	1	1-1/2	3	5590
	40	5340300	4340030	24x80 #	10x15.3 #	12x20.7 #	A+	4	1	1-1/2	3	7420
	45	5340310	4340030	24x80 #	12x20.7 #	15x33.9 #	A+	4	1	2	3	9035
	50	5340320	4340030	24x106 #	15x33.9 #	15x33.9 #	A+	4-1/2	1	2	3	11730
	20	5340330	4340030	24x80 #	—	10x15.3 #	A+	4	1	2	3	4430
10	25	5340340	4340030	20x66 #	10x15.3 #	10x15.3 #	A+	0	1	2	3	4950
	30	5340350	4340030	24x80 #	10x15.3 #	10x15.3 #	A+	4	1	2	3	6049
	35	5340360	4340030	24x80 #	10x15.3 #	12x20.7 #	A+	4	1	2	3	6815
	40	5340370	4340030	24x80 #	12x20.7 #	12x20.7 #	A+	4	1	2	3	7696
	45	5340380	4340030	24x106 #	12x20.7 #	15x33.9 #	A+	4-1/2	1	2	5	10830
	50	5340390	4340030	27x102 #	15x33.9 #	15x33.9 #	A+	7-3/4	1	2	5	11540

End Truck (c)	Wheel Tread Diameter	F(b)		G	N
		Drive Unit #1	Drive Unit #2		
4340010	10	16-1/2	—	4-3/4	4'-1-1/2"
4340020	12	18-5/8	19-1/2	5-1/8	4'-1"
4340030	18	22-7/8	23-3/4	5-3/4	4'-5"

(a) Wheel load includes allowance for 15% impact with a maximum hoist speed of 30 FPM. Standard industrial service. Refer to *ACCO* structural beam guide for other requirements.

(b) #1 Drive Unit is 1/2 - 2 HP #2 Drive Unit is 3 or 5 HP.

(c) Max. ASCE Rail = 60#/Yd.

**1 to 10
TONS**

WORK-RATED® SERIES 534 TOP RUNNING SINGLE GIRDER CRANE MOTOR DRIVEN—CENTER DRIVE

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAM Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes, constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel member and shall provide level and straight tread surfaces for the hoist trolleys. Crane shall be reinforced with outrigger to provide squareness with the end truck, adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical moment of inertia. Outrigger shall furnish support for squaring shaft and the crane drive motor and gear reducer assembly.

END TRUCKS End trucks shall be built of structural shapes and welded to a stable assembly to comply with general strength requirements previously stated. They shall provide proper wheel and bearing alignment for crane wheels and drives during the life of the crane. End truck wheelbase shall be a minimum of 1/8 of the crane span. One wheel in each truck shall be geared and meshed with a pinion mounted on the crane squaring shaft. The crane end trucks shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck members. A wheel and wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that, in case of a wheel, axle or wheel failure, the drop of the truck will be limited to one inch. Attachment of end trucks to bridge beams shall be with fitted bolts which will insure alignment in assembly and convenient erection.

CRANE WHEELS Crane wheels shall be double-flange alloy steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with sodium-base grease and provided with a suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Wheel treads shall be smooth, true and uniform within .010 inch tread diameter on all wheels.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercut, and the welds shall manifest workmanlike appearance.

CRANE DRIVE The crane drive motor shall be fully enclosed 30 minute duty cycle rated, with class B insulation complying with NEMA performance specifications. The motor shall be integral with a fully enclosed oil splash lubricated gear reduction. The motor and the gear reduction shafts shall be supported by permanently lubricated precision ball or roller bearings. The drive shaft shall provide synchronous drive from the gear reduction to both end trucks. The crane drive shall include an integrally mounted spring set electrically released D.C. rectified disc brake.

DRIVE SHAFT The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane drive shaft shall be steel designed to limit torsional shaft stress to 6,000 psi. Maximum torsional twist angle in the drive shaft, shall not exceed one degree of the wheel rotation under maximum rated load regardless of load location.

BEARING LIFE All bearings in the crane wheels, those supporting the squaring shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

GEARING All gears shall be cut from solid blanks with 20 degree pressure angle involute shape for high strength and shall comply with AGMA specifications for load ratings. All gears operating at higher than 200 FPM pitchline speed shall be fully enclosed in oil tight housings and lubricated by splash principle.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed required. Bridge control shall include a mainline contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA type 3R enclosure actuated from a pendant push button station from either the trolley hoist or the bridge as determined by the requirements. Single speed or two speed bridge motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Flat wire festoon tagline bridge conductor shall be provided with the crane to provide fully insulated bridge electrification. All other wiring of the crane shall be in accordance with National Electrical Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

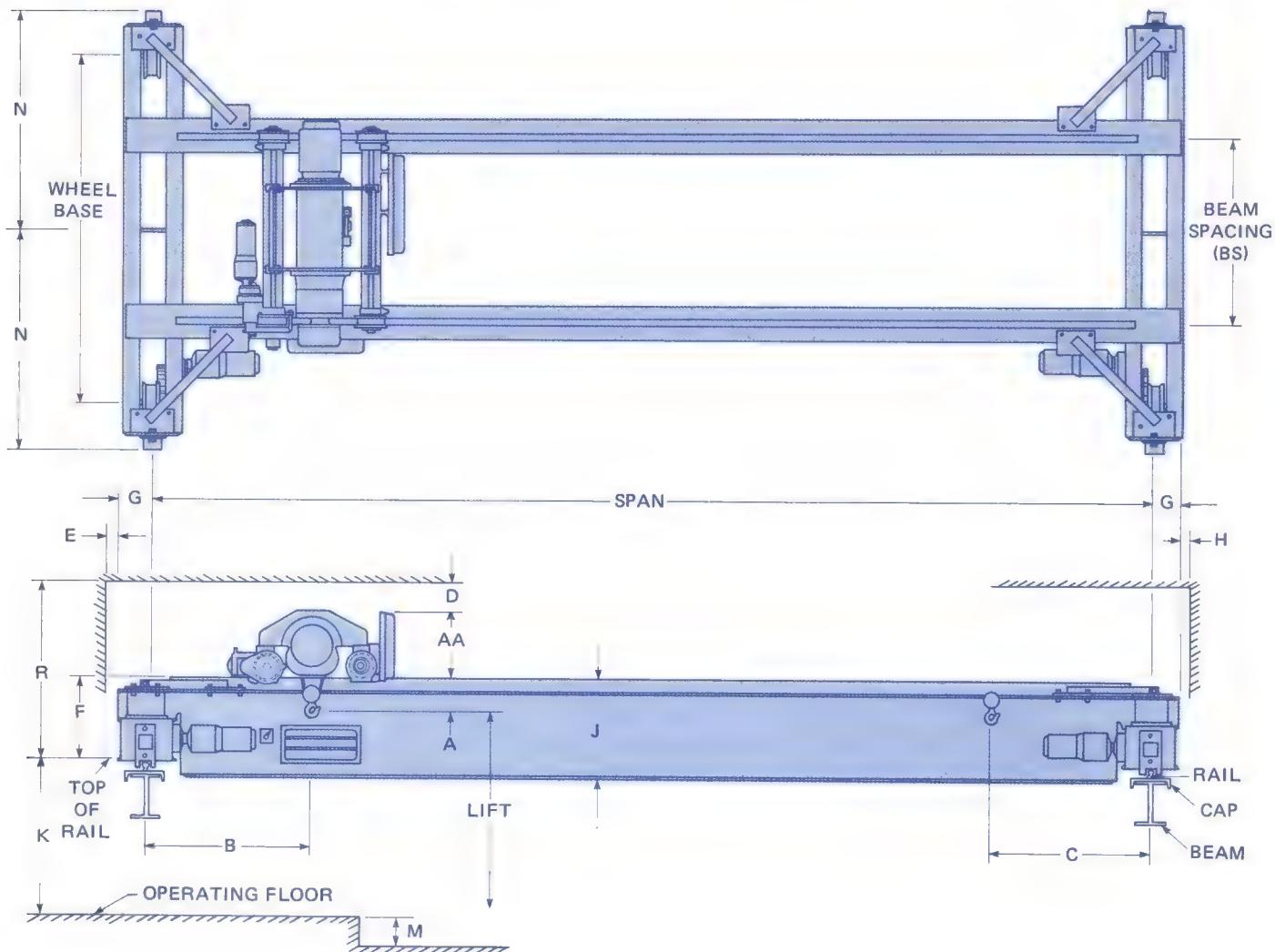
Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



Acco Chain & Lifting Products Division

A member of the Acco Material Handling Group

76 Acco Drive, P.O. Box 792, York, PA 17405
Telephone 717 741-4863
FAX 717 741-4956 Telex 84-0412



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

DATE _____ SIGNATURE _____

CRANE PROD. NO. _____ A _____

CAPACITY _____ AA _____

SPAN _____ B _____

LIFT _____ BS _____

HOIST PROD. NO. _____ C _____

RUNWAY: D _____

BEAM _____ E _____

CAP. CH. _____ F _____

RAIL _____ G _____

WHEEL LOADING _____ H _____

POWER SUPPLY _____ J _____

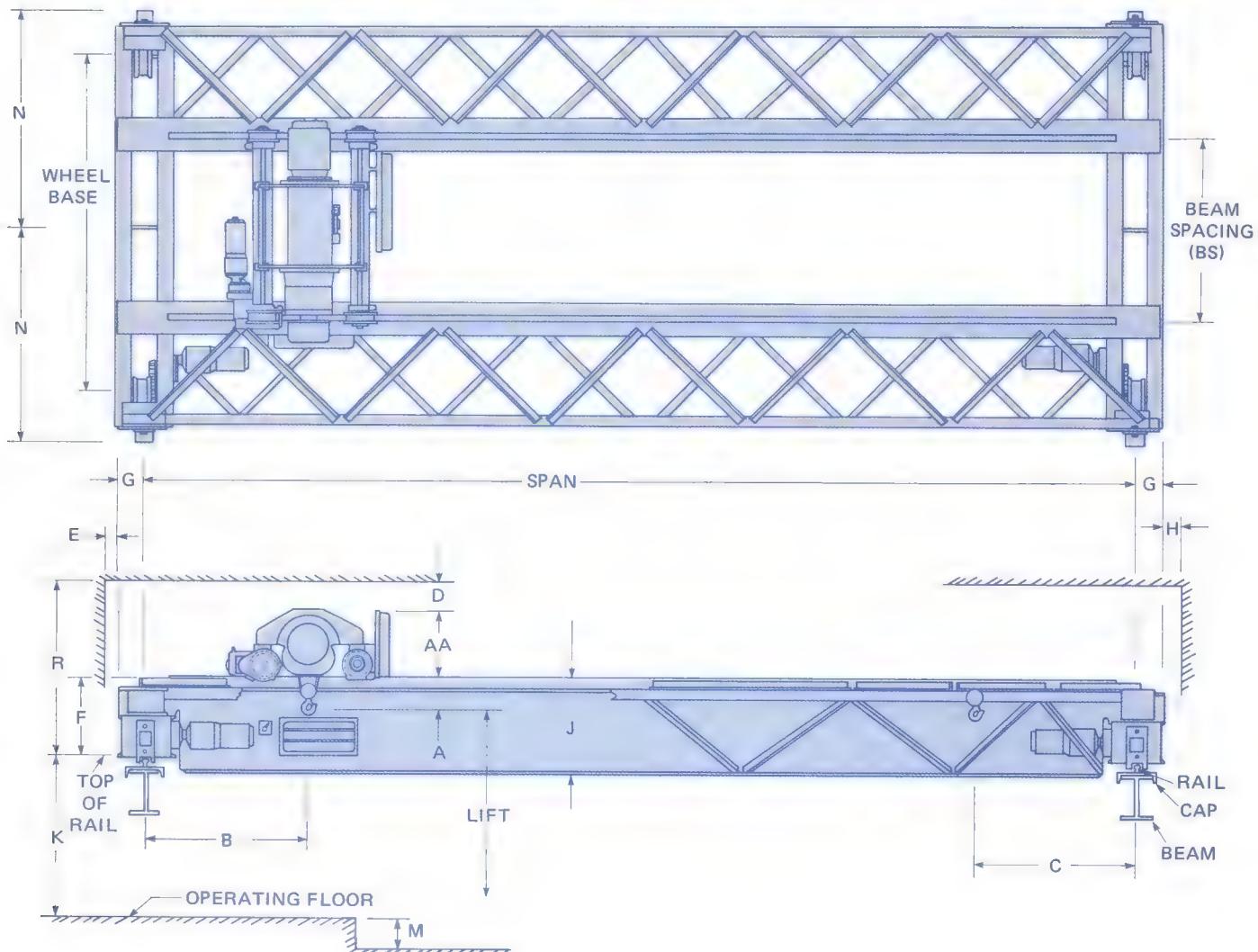
_____ K _____

_____ M _____

_____ N _____

_____ R _____

_____ WB _____



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires
2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

DATE _____ SIGNATURE _____

CRANE PROD. NO. _____ A _____

CAPACITY _____ AA _____

SPAN _____ B _____

LIFT _____ BS _____

HOIST PROD. NO. _____ C _____

RUNWAY: D _____

BEAM _____ E _____

CAP. CH. _____ F _____

RAIL _____ G _____

WHEEL LOADING _____ H _____

POWER SUPPLY _____ J _____

_____ K _____

_____ M _____

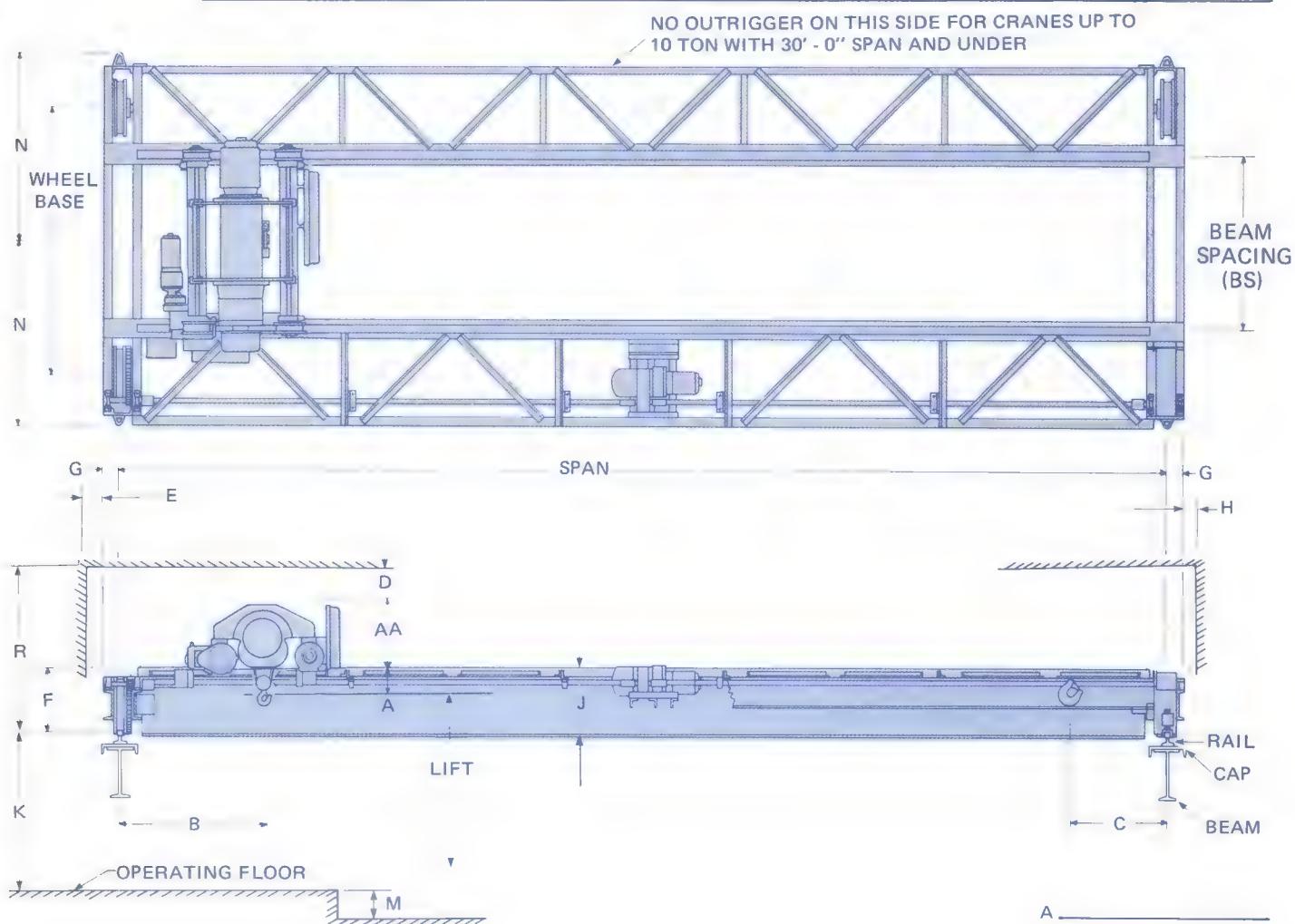
_____ N _____

_____ R _____

_____ WB _____

WARNING Equipment described herein is not
designed for, and should not be used for, lifting,
supporting or transporting humans.

Failure to comply with any one of the limita-
tions noted herein can result in serious bodily
injury and/or property damage.



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

CRANE PROD. NO. _____

CAPACITY _____

SPAN _____

LIFT _____

HOIST PROD. NO. _____

RUNWAY: _____

BEAM _____

CAP. CH. _____

RAIL _____

WHEEL LOADING _____

POWER SUPPLY _____

A _____

AA _____

B _____

BS _____

C _____

D _____

E _____

F _____

G _____

H _____

J _____

K _____

M _____

N _____

R _____

WB _____

DATE _____ SIGNATURE _____



WRIGHT® WORK-RATED®

SERIES 553

TOP RUNNING DOUBLE GIRDER MOTORIZED DUAL DRIVE CRANE WELDED PLATE BOX GIRDERS

CAPACITIES 5 to 30 TONS SPANS to 100 FEET



The *Wright Work-rated Series 553 Top Running Double Girder Motor Driven Dual Drive Crane* with welded plate box girders is engineered for industrial service. The double bridge girder design is best where maximum height of lift is important.

The Series 553 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway girders from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 553 crane is offered in capacities from five through thirty tons, with spans up to 100 feet, and with a standard bridge travel speed of 80 FPM single speed, 140 and 180 FPM are optional.

Bridges consist of two asymmetrical designed welded plate box girders. The intermediate diaphragms are eliminated resulting in substantially less weight. Unique connection to end truck requires only eight bolts for fast installation and positive alignment.

The end trucks are of welded steel structural box construction, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

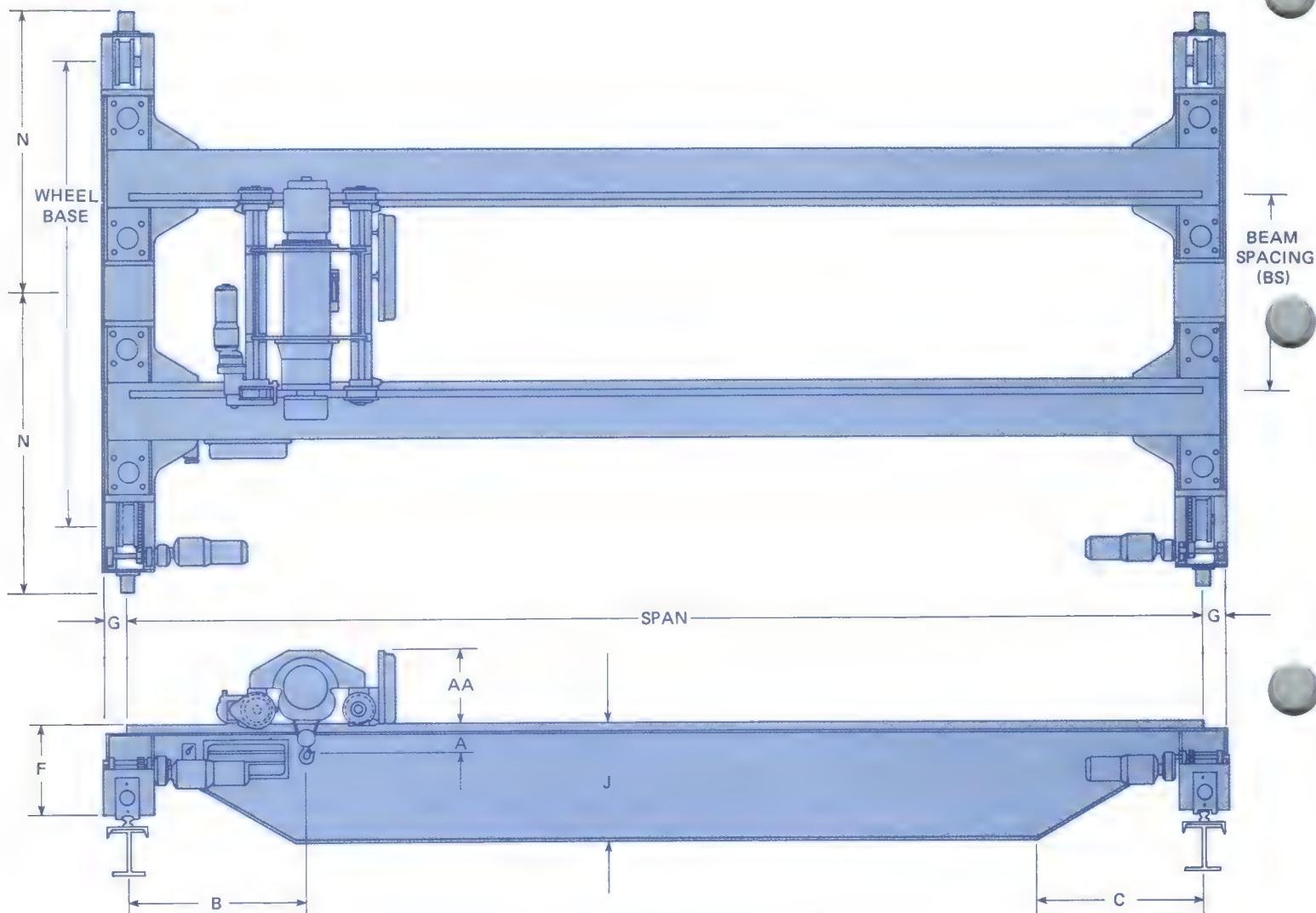
The enclosed dual drive helical gear reduction units, complete with ACM control on single and two speed drives, and A.C. disc brakes, provide smooth bridge motion and excellent load control. The Acco ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motion.

Standard electrical equipment includes NEMA type 3R enclosure, main-line magnetic contactor, manually operated fuseable disconnect switch with lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Wright cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.

**5 to 30
TONS**

**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER**



A dimension represents hoist headroom. Refer to *Work-rated top running trolley-hoist data pages*.

B and C dimension represents hoist end approach. Refer to *Work-rated top running trolley-hoist data pages* and add 3 1/4" to bumper dimension measured from centerline of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated top running trolley-hoist data pages*.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located (Acco standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.

End Truck (d)	Wheel Base	Beam Spacing (b)	Wheel Tread Dia.	G	N
4530010	13'-0"	60	18	7-3/8	8'-0"
4530020	13'-0"	78	18	7-3/8	8'-0"
4530030	13'-0"	60	18	7-3/8	8'-0"
4530040	13'-0"	60	18	7-3/8	8'-0"
4530050	13'-0"	78	18	7-3/8	8'-0"
4530060	16'-0"	60	18	7-3/8	9'-6"
4530070	16'-0"	78	18	7-3/8	9'-6"
4530080	16'-0"	96	18	7-3/8	9'-6"
4530090	16'-0"	60	18	7-3/8	9'-6"
4530100	16'-0"	78	18	7-3/8	9'-6"
4530110	16'-0"	96	18	7-3/8	9'-6"
4530120	16'-0"	60	18	7-3/8	9'-7-1/2"
4530130	16'-0"	78	18	7-3/8	9'-7-1/2"
4530140	16'-0"	60	18	7-3/8	9'-7-1/2"
4530150	16'-0"	78	18	7-3/8	9'-7-1/2"



**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER**
55-3 Issued 3-20-87

**5&7-1/2
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	HP for FPM (c)			Weight lbs.	Wheel Loads (a) lbs.
							80	140	180		
5	48	60	5530010	4530010	31	31-1/4	1	1-1/2	1-1/2	16,600	11,700
		78	5530020	4530020							
	52	60	5530030	4530010	31	31-1/4	1	1-1/2	1-1/2	17,390	11,900
		78	5530040	4530020							
	56	60	5530050	4530010	31	31-1/4	1	1-1/2	1-1/2	18,180	12,100
		78	5530060	4530020							
	60	60	5530070	4530010	31	31-1/4	1	1-1/2	1-1/2	18,970	12,300
		78	5530080	4530020							
	64	60	5530090	4530010	37	31-1/4	1	1-1/2	2	21,070	12,820
		78	5530100	4530020							
	68	60	5530110	4530010	37	31-1/4	1	1-1/2	2	21,950	13,040
		78	5530120	4530020							
	72	60	5530130	4530010	37	31-1/4	1	1-1/2	2	24,910	13,780
		78	5530140	4530020							
	76	60	5530150	4530010	43-1/8	31-1/4	1	1-1/2	2	27,450	14,420
		78	5530160	4530020							
	80	60	5530170	4530010	43-1/8	31-1/4	1	1-1/2	2	28,520	14,680
		78	5530180	4530020							
	84	60	5530190	4530060	43-1/8	31-1/4	1	1-1/2	3	30,240	15,110
		78	5530200	4530070							
	88	60	5530210	4530060	48-1/8	36-1/4	1	1-1/2	3	35,570	16,450
		78	5530220	4530070							
	92	60	5530230	4530060	48-1/8	36-1/4	1	1-1/2	3	36,840	16,760
		78	5530240	4530070							
	96	60	5530250	4530060	54-1/8	36-1/4	1	1-1/2	3	40,080	17,570
		78	5530260	4530070							
	100	60	5530270	4530060	54-1/8	36-1/4	1	1-1/2	3	41,430	17,910
		78	5530280	4530070							
7-1/2	48	60	5530290	4530010	31	31-1/4	1	1-1/2	2	16,600	14,576
		78	5530300	4530020							
	52	60	5530310	4530010	31	31-1/4	1	1-1/2	2	17,390	14,770
		78	5530320	4530020							
	56	60	5530330	4530010	31	31-1/4	1	1-1/2	2	18,600	15,080
		78	5530340	4530020							
	60	60	5530350	4530010	37	31-1/4	1	1-1/2	2	20,200	15,480
		78	5530360	4530020							
	64	60	5530370	4530010	37	31-1/4	1	1-1/2	2	21,070	15,700
		78	5530380	4530020							
	68	60	5530390	4530010	37-1/8	31-1/4	1	1-1/2	2	22,970	16,170
		78	5530400	4530020							
	72	60	5530410	4530010	37-1/4	31-1/4	1	1-1/2	3	26,160	16,970
		78	5530420	4530020							
	76	60	5530430	4530010	43-1/8	31-1/4	1	2	3	27,450	17,290
		78	5530440	4530020							
	80	60	5530450	4530010	43-1/8	31-1/4	1	2	3	29,230	17,730
		78	5530460	4530020							
	84	60	5530470	4530060	48-1/8	36-1/4	1	2	3	31,670	18,340
		78	5530480	4530070							
	88	60	5530490	4530060	48-1/8	36-1/4	1	2	3	35,570	19,320
		78	5530500	4530070							
	92	60	5530510	4530060	48-1/4	36-1/4	1	2	3	37,760	19,870
		78	5530520	4530070							
	96	60	5530530	4530060	54-1/8	36-1/4	1-1/2	2	3	40,080	20,450
		78	5530540	4530070							
	100	60	5530550	4530060	54-1/4	36-1/4	1-1/2	2	3	42,410	21,030
		78	5530560	4530070							

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

(d) Max. ASCE Rail = 80 #/Yd.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

**10 & 15
TONS**
**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	HP for FPM (c)			Weight lbs.	Wheel Loads lbs. (a)
							80	140	180		
10	48	60	5530570	4530010	31-1/4	31-1/4	1	1-1/2	2	16,950	17,820
		78	5530580	4530020							
	52	60	5530590	4530010	31-1/4	31-1/4	1	1-1/2	2	18,170	18,120
		78	5530600	4530020							
	56	60	5530610	4530010	37-1/4	31-1/4	1	1-1/2	2	19,740	18,510
		78	5530620	4530020							
	60	60	5530630	4530010	37-1/4	31-1/4	1	1-1/2	2	20,640	18,740
		78	5530640	4530020							
	64	60	5530650	4530010	43	31-1/4	1	2	3	22,380	19,170
		78	5530660	4530020							
	68	60	5530670	4530010	43-1/8	31-1/4	1	2	3	23,850	19,540
		78	5530680	4530020							
	72	60	5530690	4530010	43-1/8	31-1/4	1	2	3	26,380	20,170
		78	5530700	4530020							
	76	60	5530710	4530010	48-1/8	36-1/4	1	2	3	28,740	20,760
		78	5530720	4530020							
	80	60	5530730	4530010	48-1/8	36-1/4	1	2	3	29,880	21,050
		78	5530740	4530020							
	84	60	5530750	4530060	48-1/4	36-1/4	1	2	3	33,130	21,860
		78	5530760	4530070							
	88	60	5530770	4530060	48-1/4	36-1/4	1-1/2	3	3	37,330	22,910
		78	5530780	4530070							
	92	60	5530790	4530060	54-1/8	36-1/4	1-1/2	3	3	38,730	23,260
		78	5530800	4530070							
	96	60	5530810	4530060	54-1/4	36-1/4	1-1/2	3	3	41,020	23,830
		78	5530820	4530070							
	100	60	5530830	4530060	54-1/4	36-1/4	1-1/2	3	4	45,410	24,930
		78	5530840	4530070							
15	48	60	5530850	4530010	31-1/4	31-1/4	1	2	3	17,670	23,840
		78	5530860	4530020							
	52	60	5530870	4530010	37-1/8	31-1/4	1	2	3	18,830	24,140
		78	5530880	4530020							
	56	60	5530890	4530010	37-1/8	31-1/4	1	2	3	20,160	24,470
		78	5530900	4530020							
	60	60	5530910	4530010	43-1/8	31-1/4	1	2	3	21,880	24,900
		78	5530920	4530020							
	64	60	5530930	4530010	43-1/8	31-1/4	1	2	3	22,860	25,140
		78	5530940	4530020							
	68	60	5530950	4530010	48-1/8	36-1/4	1-1/2	2	3	25,010	25,680
		78	5530960	4530020							
	72	60	5530970	4530010	48-1/8	36-1/4	1-1/2	3	3	28,240	26,490
		78	5530980	4530020							
	76	60	5530990	4530010	48-1/4	36-1/4	1-1/2	3	3	30,060	26,940
		78	5531000	4530020							
	80	60	5531010	4530010	54-1/8	36-1/4	1-1/2	3	3	32,220	27,480
		78	5531020	4530020							
	84	60	5531030	4530060	54-1/4	36-1/4	1-1/2	3	4	35,580	28,320
		78	5531040	4530070							
	88	60	5531050	4530060	54-1/4	36-1/4	1-1/2	3	4	39,120	29,210
		78	5531060	4530070							
	92	60	5531070	4530060	54-3/8	36-1/4	1-1/2	3	4	42,390	30,020
		78	5531080	4530070							
	96	60	5531090	4530060	60-1/2	42-1/2	1-1/2	3	4	45,880	30,900
		78	5531100	4530070							
	100	60	5531110	4530060	60-1/2	42-1/2	1-1/2	3	4	47,470	31,240
		78	5531120	4530070							

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to *Acco Structural Beam Guide* for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE—WELDED PLATE BOX GIRDER**

55-5 Issued 3-20-87

**20
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	HP for FPM (c)			Weight lbs.	Wheel Loads (a) lbs.
							80	140	180		
20	48	60	5531130	4530030	37-1/8	31-1/4	1-1/2	3	4	18,930	30,190
		78	5531140	4530050							
		96	5531150	4530110							
	52	60	5531160	4530030	37-1/4	31-1/4	1-1/2	3	4	20,610	30,610
		78	5531170	4530050							
		96	5531180	4530110							
	56	60	5531190	4530030	43-1/8	31-1/4	1-1/2	3	4	21,890	30,930
		78	5531200	4530050							
		96	5531210	4530110							
	60	60	5531220	4530030	43-1/4	31-1/4	1-1/2	3	4	23,760	31,390
		78	5531230	4530050							
		96	5531240	4530110							
	64	60	5531250	4530030	48-1/8	36-1/2	1-1/2	3	4	24,950	31,690
		78	5531260	4530050							
		96	5531270	4530110							
	68	60	5531280	4530030	48-1/4	36-1/2	1-1/2	3	4	27,010	32,210
		78	5531290	4530050							
		96	5531300	4530110							
	72	60	5531310	4530030	48-3/8	36-1/2	1-1/2	3	4	30,110	33,230
		78	5531320	4530050							
		96	5531330	4530110							
	76	60	5531340	4530030	54-1/4	36-1/2	1-1/2	3	4	33,280	33,770
		78	5531350	4530050							
		96	5531360	4530110							
	80	60	5531370	4530030	54-1/4	36-1/2	1-1/2	3	4	34,610	34,110
		78	5531380	4530050							
		96	5531390	4530110							
	84	60	5531400	4530090	54-1/2	36-1/2	1-1/2	3	4	38,140	34,990
		78	5531410	4530100							
		96	5531420	4530110							
	88	60	5531430	4530090	54-1/2	36-1/2	1-1/2	3	4	43,000	36,200
		78	5531440	4530100							
		96	5531450	4530110							
	92	60	5531460	4530090	60-3/8	42-3/4	2	3	4	44,640	36,610
		78	5531470	4530100							
		96	5531480	4530110							
	96	60	5531490	4530090	60-5/8	42-3/4	2	4	5	49,090	37,730
		78	5531500	4530100							
		96	5531510	4530110							
	100	60	5531520	4530090	60-5/8	42-3/4	2	4	5	51,800	38,400
		78	5531530	4530100							
		96	5531540	4530110							

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to *ACCO Structural Beam Guide* for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

**25
TONS**

**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	HP for FPM (c)			Weight lbs.	Wheel Loads (a) lbs.
							80	140	180		
25	48	60	5531550	4530030	37-1/4	31-1/4	1-1/2	3	4	18,650	37,190
		78	5531560	4530050							
	52	60	5531570	4530030	43-1/8	31-1/4	1-1/2	3	4	19,907	37,500
		78	5531580	4530050							
	56	60	5531590	4530030	43-1/4	31-1/4	1-1/2	3	4	21,720	37,960
		78	5531600	4530050							
	60	60	5531610	4530030	48-1/8	36-1/4	1-1/2	3	4	23,340	38,360
		78	5531620	4530050							
	64	60	5531630	4530030	48-1/4	36-1/4	1-1/2	3	4	25,380	38,870
		78	5531640	4530050							
	68	60	5531650	4530030	48-1/4	36-1/4	1-1/2	3	4	27,540	39,410
		78	5531660	4530050							
	72	60	5531670	4530030	54-1/4	36-1/4	1-1/2	3	4	30,960	40,270
		78	5531680	4530050							
	76	60	5531690	4530030	54-1/4	36-1/4	1-1/2	3	4	32,290	40,600
		78	5531700	4530050							
	80	60	5531710	4530030	54-1/2	36-1/2	2	3	5	35,710	41,450
		78	5531720	4530050							
	84	60	5531730	4530120	54-5/8	37	2	4	5	41,020	42,780
		78	5531740	4530130							
	88	60	5531750	4530120	54-3/8	43	2	4	5	43,760	43,460
		78	5531760	4530130							
	92	60	5531770	4530120	60-5/8	43	2	4	5	48,090	44,550
		78	5531780	4530130							
	96	60	5531790	4530120	66-1/4	43	2	4	5	52,200	45,570
		78	5531800	4530130							
	100	60	5531810	4530120	66-3/8	43	2	4	—	56,000	46,530
		78	5531820	4530130							

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to *Acco Structural Beam Guide* for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE—WELDED PLATE BOX GIRDER**
55-7 Issued 3-20-87

**30
TONS**

Capacity in Tons	Max. Span ft.	Beam Spacing in. (b)	Crane Product Number	End Truck Product Number	J in.	F in.	HP for FPM (c)			Weight lbs.	Wheel Loads lbs. (a)
							80	140	180		
30	48	60	5531830	4530040	43-1/8	31-1/4	1-1/2	3	4	19,560	43,160
		78	5531840	4530050							
	52	60	5531850	4530040	43-1/4	31-1/4	1-1/2	3	4	20,960	43,510
		78	5531860	4530050							
	56	60	5531870	4530040	48-1/8	36-1/4	1-1/2	3	4	22,540	43,910
		78	5531880	4530050							
	60	60	5531890	4530040	48-1/4	36-1/2	2	3	4	24,960	44,510
		78	5531900	4530050							
	64	60	5531910	4530040	48-1/2	36-1/2	2	3	5	27,560	45,170
		78	5531920	4530050							
	68	60	5531930	4530040	54-3/8	36-1/2	2	4	5	29,210	45,580
		78	5531940	4530050							
	72	60	5531950	4530040	54-3/8	36-1/2	2	4	5	32,490	46,400
		78	5531960	4530050							
	76	60	5531970	4530040	54-1/2	36-1/2	2	4	5	34,560	46,910
		78	5531980	4530050							
	80	60	5531990	4530040	54-5/8	36-3/4	2	4	5	36,070	47,790
		78	5532000	4530050							
	84	60	5532010	4530140	60-1/2	43	2	4	5	44,180	49,321
		78	5532020	4530150							
	88	60	5532030	4530140	60-3/4	43	2	4	5	46,730	49,960
		78	5532040	4530150							
	92	60	5532050	4530140	66-3/8	43	2	4	—	52,580	51,420
		78	5532060	4530150							
	96	60	5532070	4530140	66-3/8	43	2	4	—	54,470	51,890
		78	5532080	4530150							
	100	60	5532090	4530140	66-3/4	43	2	4	—	59,360	53,120
		78	5532100	4530150							

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net load at the hook of any type of hoist. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin of strength to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BRIDGE GIRDERS Computer selected welded box girders feature the concept of asymmetrical design with continuous welding to achieve greatest strength with minimum dead weight. Factory cambered girders have a maximum total load deflection 1/800 of span. Full length diaphragms are utilized for stiffness. Girders are notched at ends and set on top of end trucks. Unique horizontal shear rings mate girder to end truck, assure accurate girder alignment at installation and absorb horizontal shear forces.

Girder trolley rails are high strength steel bars, designed to carry trolley wheel loads with minimum wear.

END TRUCKS The end truck frame shall be welded from structural shapes into a single unit as to prevent distortion and mismatch of gears under maximum rated load. End truck wheelbase shall be a minimum of 16% of the crane span. One wheel in each truck shall be geared and meshed with a pinion.

The truck shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck member. A wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that the drop of the truck will be limited to one inch in case of axle or wheel failure. Attachment of end truck to bridge beam shall be by shear rings with bolts to insure alignment.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment.

Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercut, and the welds shall manifest workmanlike appearance.

CRANE DRIVE Each end truck shall be provided with a helical gear motor reducer. The drive motor for each truck shall be fully enclosed, 30 minute duty rated Class B insulation in a NEMA frame and shall comply with NEMA performance specifications. A spring set, electrically released A.C. disc type brake shall be integrally mounted on each reducer in line with the motor. The motors shall be integral with fully enclosed oil splash lubricated gear reducers. The gear reduction shaft shall be supported by precision ball or roller bearings.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed motors or two speed motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electric Code and complying with Fire Underwriters specifications.

PAINTING The crane shall be painted before shipment with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

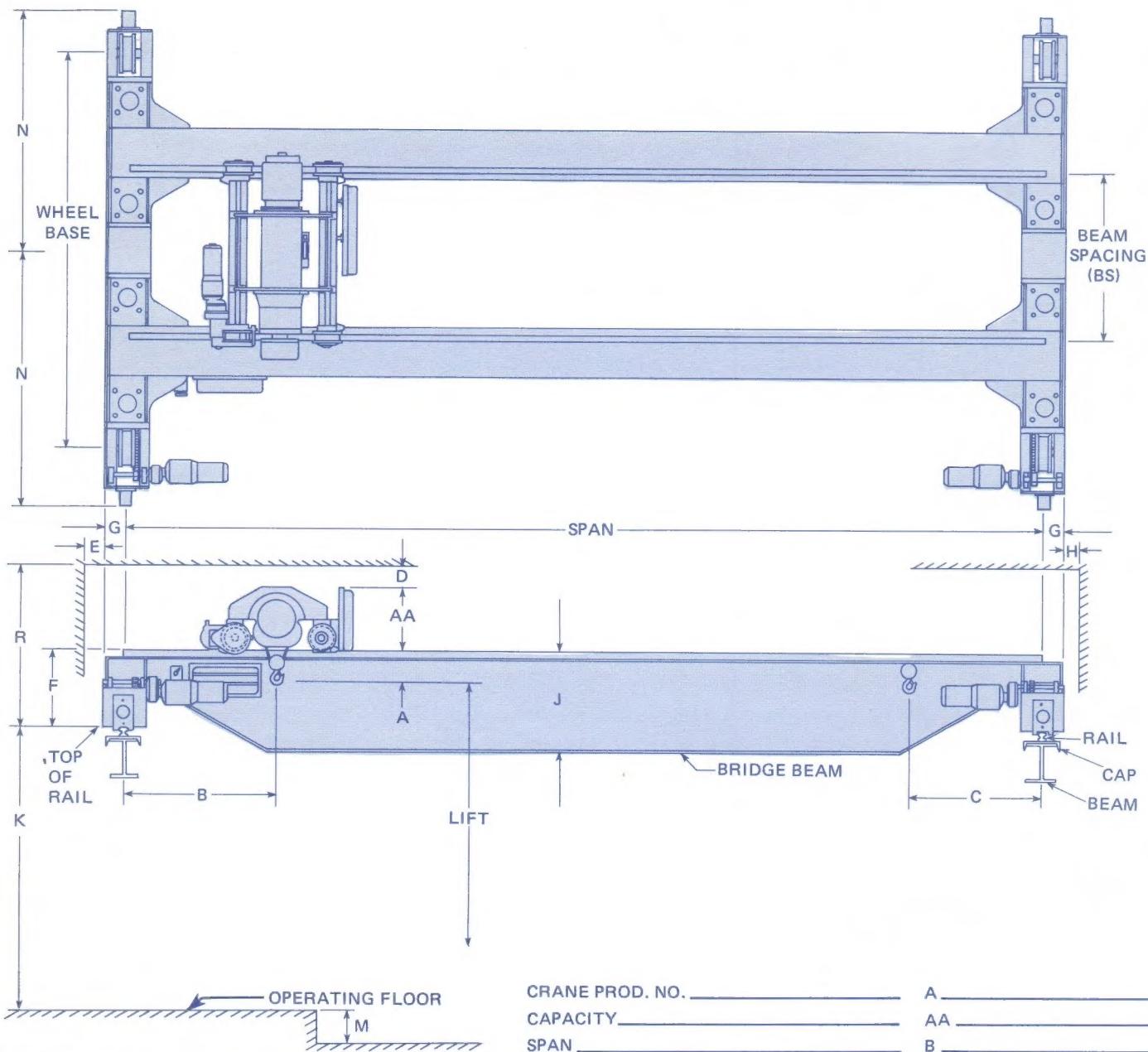
Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

**Material Handling Group**

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Note: Left-hand runway is standard location of runway conductors.

Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL

DATE SIGNATURE

ACCO Chain & Lifting Products Division
A member of the Acco Material Handling Group

76 Acco Drive, Box 792, York, PA 17405
Telephone 717 741-4863 Telex 84-0412
Fax 717 741-4521 Chain Products
Fax 717 741-4956 Lifting Products

CRANE PROD. NO. _____ A _____
CAPACITY _____ AA _____
SPAN _____ B _____
LIFT _____ BS _____
HOIST PROD. NO. _____ C _____
RUNWAY: D _____
BEAM _____ E _____
CAP. CH. _____ F _____
RAIL _____ G _____
WHEEL LOADING _____ H _____
POWER SUPPLY _____ J _____
K _____
L _____
M _____
N _____
O _____
P _____
Q _____
R _____
WB _____

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.